**Career Academy Integrated Unit Plan**

**Academy Name: Construction Academy** **School: Deland High School**

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| Integrated Unit Plan Title: Construction Framing Project |
| Courses to integrate: Math, English III, English IV |
| Grade Level: 9 |
| Timeline & Duration: |

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| Unit Summary: Students will gain hands on experience by building an insulated sound wall to school building codes. This wall will divide the construction teacher’s office in half and include one 36” door. Students will estimate all materials and costs prior to start date. Students will use proper measurement and lay out tools while construction wall. Students will also estimate amount of dry wall materials, primer paint, and finish paint, door trim and base materials. |

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| **Overview of Activities/Lessons per Course** | | | | |
| Course | English III | English IV | Algebra I |  |
| Activity/Lesson  #1 |  |  | Estimate the amount of material needed. |  |
| Activity/Lesson  #1 |  |  | Create an excel worksheet with the materials and cost for the wall. |  |

**Lesson Instructions for Algebra 1: Estimating amount of material – Activity 1**

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| **Standards (Performance Tasks or Course Frameworks or Sunshine State Standards):**  MA.912.A.2.13 – Solve real world problems involving relations & functions  MA.912.A.10.2 – Decide whether a solution is reasonable in context of the original solution.  MA.912.A.3.1 – Solve linear equations in one variable that include simplifying algebraic expressions.  MA.912.A.3.3 – Solve literal equations for a specific variable  **Rigor & Relevance (quadrant): D - Adaptation** |
| **Instructions to Teacher:** Instruct students to use the drawing of the wall and dimensions of the wall to determine the how many of each item they need to construct the wall. |
| **Instructions to Students:** Knowing the size of the material being used, decide how much of each item you need and fill in the number on the Excel worksheet. |
| **Instructions for Student Accommodations:** Students will work together in their groups and may ask the teacher to help. |
| **Assessment for Activity:** Accuracy of worksheet. |
| **Approximate Length of Time for Activity:** 2 hours |
| **Materials Needed:** paper, pencil, calculators |

**Lesson Instructions for Algebra 1: Create and excel worksheet – Activity 2**

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| **Standards (Performance Tasks or Course Frameworks or Sunshine State Standards):**  MA.912.A.2.13 – Solve real world problems involving relations & functions  MA.912.A.10.2 – Decide whether a solution is reasonable in context of the original solution.  MA.912.A.3.1 – Solve linear equations in one variable that include simplifying algebraic expressions.  MA.912.A.3.3 – Solve literal equations for a specific variable  **Rigor & Relevance (quadrant): D - Adaptation** |
| **Instructions to Teacher:** Instruct students on the construction of an excel worksheet including “sum” function. Reserve the computer lab. |
| **Instructions to Students:** Complete the worksheet using “sum” function. |
| **Instructions for Student Accommodations:** Students will work alone but may help those students that have questions. |
| **Assessment for Activity:** Accuracy of worksheet. |
| **Approximate Length of Time for Activity:** 2 hours |
| **Materials Needed:** work from previous class with quantity of material. |